

## **RAKE RECEIVER FOR TRACKING CLOSELY SPACED MULTIPATH**

### **ABSTRACT**

**[1078]** Techniques for tracking closely spaced multipath and preventing finger merge without monitoring relative positions between each of a plurality of fingers are disclosed. In one aspect, motion limits are determined for each finger. Time-tracking commands that would move the position of a finger outside its respective motion limits are suppressed. In another aspect, motion limits are updated dynamically, the motion limits of each finger determined in accordance with the motion limits of fingers adjacent to it. Various other aspects are also presented. These aspects have the benefit of preventing finger merge, which allows the allocation of multiple fingers to closely spaced multipath, thus increasing performance and system capacity, and mitigating misallocation of system resources.